Grass Trimmer

Operator's Manual

MODEL GT-2000EZR

Serial Number 04001001 - 04999999

WARNING DANGER

The muffler or catalytic muffler and surrounding cover may become extremely hot.

Always keep clear of exhaust and muffler area, otherwise serious personal injury may occur.

WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

WARNING DANGER

Read rules for safe operation and instructions carefully. ECHO provides an Operator's Manual and a Safety Manual. Both must be read and understood for proper and safe operation.

X7702278800

X770000850
08/02

INTRODUCTION

Welcome to the ECHO family. This ECHO product was designed and manufactured to provide long life and on-the-job dependability. Read and understand this manual and the SAFETY MANUAL you found in the same package. You will find both easy to use and full of helpful operations tips and SAFETY messages.

THE OPERATOR'S MANUAL

Read and understand this manual before operation. Keep it in a safe place for future reference. It contains specifications and information for operation, starting, stopping, maintenance, storage and assembly specific to this product.

THE SAFETY MANUAL

Read and understand this manual before operation. Keep it in a safe place for future reference. It explains possible hazards involved with the use of Grass Trimmers and Brush Cutters and what measures you should take to make their use safer.

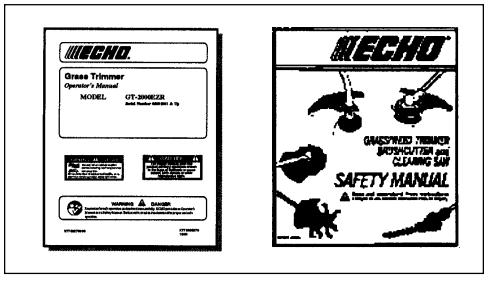


TABLE OF CONTENTS

Introduction 2
- The Operator's Manual 2
- The Safety Manual 2
Manual Safety Symbols and Important Information .. 3
Safety 3
- Decals 4
- International Symbols 4
Safety Instructions 4
- Personal Conditions and Safety Equipment 4
- Extended Operation/Extreme Conditions 5
- Equipment 5
- Safe Operation 6
Emission Control 6
Description 6
- Contents List 7
Specifications 9
Assembly 10
- Plastic Shield Installation 10
- Nylon Head Installation 10
- Nylon Line Replacement 11
- Front (Loop) Handle 11
Pre-Operation 12
- Fuel 12
Operation 13
- Starting Cold Engine 13
- Starting Warm Engine 14
- Stopping Engine 15
Maintenance 15
- Skill Level 15
- Maintenance Intervals 16
- Air Filter 17
- Fuel Filter 17
- Spark plug 18
- Cooling System 18
- Exhaust System 21
- Carburetor Adjustment 21
- Lubrication 23
Troubleshooting 24
Storage 25
Servicing Information 28
- Parts 28
- Service 28
- ECHO Consumer Product Support 28
- Warranty Card 28
- Additional or Replacement Manuals 28

Specifications, descriptions and illustrative material in this literature are as accurate as known at the time of publication, but are subject to change without notice. Illustrations may include optional equipment and accessories, and may not include all standard equipment.

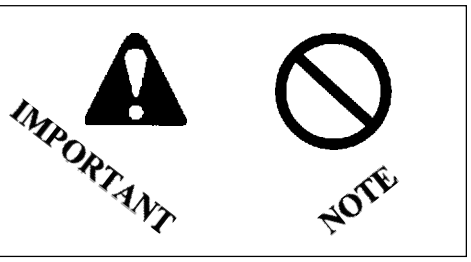
Copyright© 2002 By Echo, Incorporated
All Rights Reserved.

MANUAL SAFETY SYMBOLS AND IMPORTANT INFORMATION

Throughout this manual and on the product itself, you will find safety alerts and helpful, information messages preceded by symbols or key words. The following is an explanation of those symbols and key words and what they mean to you.

This symbol accompanied by the words **WARNING** and **DANGER** calls attention to an act or condition that can lead to serious personal injury to operator and bystanders.

The circle with the slash symbol means whatever is shown within the circle is prohibited.



IMPORTANT The enclosed message provides information necessary for the protection of the unit.

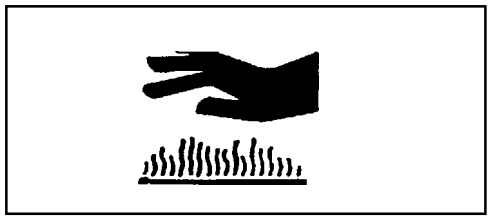
NOTE This enclosed message provides tips for use, care and maintenance of the unit.

SAFETY

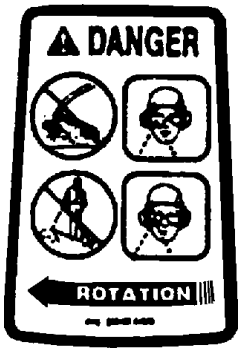
DECALS

Locate these safety decals on your unit. The complete unit illustration found in the "DESCRIPTION" section, will help you locate them. Make sure the decals are legible and that you understand and follow the instructions on them. If a decal cannot be read, a new one can be ordered from your ECHO dealer. See PARTS ORDERING instructions for specific information.

P/N 89016006361



SHIELD DECAL



P/N 89031748731

WARNING ⚠ DANGER

1 This unit can be dangerous and cause serious injury if improperly used. To reduce injury risk to operator, helpers and bystanders, read and understand the Operators and Safety Manuals.
2 Blindness can occur from objects that are thrown or ricochet even with shield in place. Operators, helpers and by-standers must wear eye protection, ANSI Z87.1 approved.

ATTENTION ⚠ DANGER

1 Cet appareil peut être dangereux et causer des blessures graves s'il est mal employé. Pour réduire les risques de blessures à l'opérateur, aux assistants et aux spectateurs, lire les manuels de l'opérateur et de sécurité pour en comprendre la portée.
2 Les objet projétes par l'appareil ou par ricochet, peuvent provoquer la cécité. Les opérateurs, les assistants et les spectateurs doivent porter des lunettes de protection ANSI 87.1 approuvé.

'GT' UNITS

UNITÉS 'GT'

3 Always wear hearing protection when operating unit.
4 Prevent accidental contact with unit and any cutting attachment. Maintain a 50 ft. (15 m) radius, **DANGER ZONE** surrounding the operator. **ONLY** the operator, dressed in proper protective clothing should be in the **DANGER ZONE.**
5 **DO NOT INSTALL METAL BLADES ON GT (GRASS TRIMMERS) MODELS.**

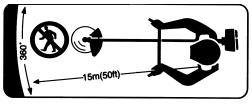
3 Toujours porter une protection auditive pendant l'utilisation de l'appareil.
4 Prévenir tout contact accidentel avec l'appareil et les accessoires de coupe. Maintenir une **ZONE DE DANGER** de 50 pieds (15 m) autour de l'opérateur. **SEUL** l'opérateur portant les vêtements protecteurs appropriés devrait être dans la **ZONE DE DANGER.**
5 **NE PAS INSTALLER LES COUTEAUX DE METAL SUR LES MODELES GT (COUPE-HERBE).**

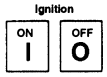
6 Cutting attachment does not stop immediately after releasing throttle. Keep hands and feet clear of blade/cutting attachment unless engine is shut off and cutting attachment is not moving.
7 Do not remove shields, modify the unit or install attachments or parts not approved by ECHO. Approved attachment information and replacement Operators and Safety Manuals are available from your ECHO dealer or by writing: **ECHO INCORPORATED, 400 Oakwood Rd., Lake Zurich, IL 60047.**

6 L'accessoire de coupe ne s'arrête pas imédiatement aprés avoir relâché la gâchette. Garder les mains et les pieds éloignés de l'accessoire de coupe, a moins que le moteur ne soit arrête et que l'accessoire ne bouge plus.
7 Ne pas enlever les protecteurs, modifier l'appareil ou installer des accessoires qui ne sont pas approuvés par ECHO. Des renseignements sur les accessoires ECHO approuvés et les pièces de rechange se trouvent dans les manuels de l'opérateur et de sécurité que vous pouvez obtenir auprès de votre marchand ECHO ou en écrivant à: **ECHO INCORPORATED, 400 Oakwood Rd., Lake Zurich, IL 60047.**

89031748731

INTERNATIONAL SYMBOLS

SYMBOL FORM/ SHAPE	SYMBOL DESCRIPTION/APPLICATION	SYMBOL FORM/ SHAPE	SYMBOL DESCRIPTION/APPLICATION
	Read and understand Operator's Manual.		FUEL AND OIL MIXTURE
	WEAR EYES, EARS AND HEAD PROTECTION		FINGER SEVERING
	HOT SURFACE		WEAR SLIP RESISTANT FOOT WEAR.
	WEAR HAND AND FOOT PROTECTION		DO NOT SMOKE NEAR FUEL.
	SAFETY/ALERT		
	KEEP BYSTANDERS AND HELPERS AWAY 15 M (50 FT.).		

SYMBOL FORM/ SHAPE	SYMBOL DESCRIPTION/APPLICATION	SYMBOL FORM/ SHAPE	SYMBOL DESCRIPTION/APPLICATION
	DO NOT ALLOW FLAMES OR SPARKS NEAR FUEL.		EMERGENCY STOP
	ENGINE CHOKE CONTROL.		IGNITION ON/OFF
	PRIMER BULB	H	CARBURETOR ADJUSTMENT - HIGH SPEED MIXTURE
	DO NOT EXCEED 10,000 RPM.	L	CARBURETOR ADJUSTMENT - LOW SPEED MIXTURE
	DO NOT OPERATE WITHOUT GUARDS AND SHIELDS IN PLACE.	T	CARBURETOR ADJUSTMENT - IDLE SPEED
	DO NOT USE BLADES. STRING LINE ONLY		BEWARE - THROWN, RICOCHET OBJECTS

SAFETY INSTRUCTIONS

PERSONAL CONDITION AND SAFETY EQUIPMENT

WARNING **DANGER**

Trimmer/Brush Cutter users risk injury to themselves and others if the trimmer/brush cutter is used improperly and or safety precautions are not followed. Proper clothing and safety gear must be worn when operating a trimmer.

Physical Condition

Your judgment and physical dexterity may not be good:

- if you are tired or sick,
- if you are taking medication,
- if you have taken alcohol or drugs.

Operate unit only if you are physically and mentally well.

Eye Protection

Wear eye protection that meets ANSI Z87.1 or CE requirements whenever you operate the trimmer.

Hand Protection

Wear no-slip, heavy duty work gloves to improve your grip on the Trimmer/Brush Cutter handles. Gloves also reduce the transmission of machine vibration to your hands.

Hearing Protection

ECHO recommends wearing hearing protection whenever unit is used.

Proper Clothing

Wear snug fitting, durable clothing;

- Pants should have long legs, shirts with long sleeves.
- DO NOT WEAR SHORTS,
- DO NOT WEAR TIES, SCARVES, JEWELRY.

Wear sturdy work shoes with non-skid soles;

- DO NOT WEAR OPEN TOED SHOES,
- DO NOT OPERATE UNIT BAREFOOTED.

EXTENDED OPERATION/EXTREME CONDITIONS

Vibration and Cold --

It is believed that a condition called Raynaud's Phenomenon, which affects the fingers of certain individuals may be brought about by exposure to vibration and cold. Exposure to vibration and cold may cause tingling and burning sensations followed by loss of color and numbness in the fingers. The following precautions are strongly recommended because the minimum exposure which might trigger the ailment is unknown.

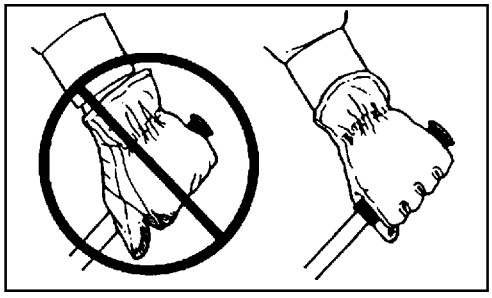
- Keep your body warm, especially the head, neck, feet, ankles, hands and wrists.
- Maintain good blood circulation by performing vigorous arm exercises during frequent work breaks and also by not smoking.
- Limit the hours of operation. Try to fill each day with jobs where operating the trimmer or other hand-held power equipment is not required.
- If you experience discomfort, redness and swelling of the fingers followed by whitening and loss of feeling, consult your physician before further exposing yourself to cold and vibration.

Repetitive Stress Injuries --

It is believed that overusing the muscles and tendons of the fingers, hands, arms and shoulders may cause soreness, swelling, numbness, weakness and extreme pain in those areas. Certain repetitive hand activities may put you at a high risk for developing a Repetitive Stress Injury (RSI). An extreme RSI condition is Carpal Tunnel Syndrome (CTS), which could occur when your wrist swells and squeezes a vital nerve that runs through the area. Some believe that prolonged exposure to vibration may contribute to CTS. CTS can cause severe pain for months or even years.

To reduce the risk of RSI/CTS, do the following:

- Avoid using your wrist in a bent, extended or twisted position. Instead try to maintain a straight wrist position. Also, when grasping, use your whole hand, not just the thumb and index finger.
- Take periodic breaks to minimize repetition and rest your hands.
- Reduce the speed and force in which you do the repetitive movement.
- Do exercises to strengthen the hand and arm muscles.
- Immediately stop using all power equipment and consult a doctor if you feel tingling, numbness or pain in the fingers, hands, wrists or arms. The sooner RSI/CTS is diagnosed, the more likely permanent nerve and muscle damage can be prevented.

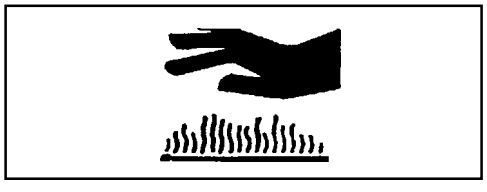


EQUIPMENT

WARNING ⚠ DANGER

Use only ECHO approved attachments. Serious injury may result from the use of a non approved attachment combination. ECHO, INC. will not be responsible for the failure of cutting devices, attachments or accessories which have not been tested and approved by ECHO. Read and comply with all safety instructions listed in this manual and safety manual.

- Check unit for loose/missing nuts, bolts and screws. Tighten and/or replace as needed.
- Inspect fuel lines, tank and area around carburetor for fuel leaks. DO NOT operate unit if leaks are found.
- Inspect shield for damage and ensure that the cut-off knife is securely in place. Replace if either is damaged or missing.
- Check that the cutting attachment is firmly attached and in safe operating condition.
- Check that front (loop) handle and optional shoulder/waist harness are adjusted for safe, comfortable operation. See Assembly for proper adjustment.
- Have repairs done only by an authorized ECHO Service Dealer.
- Keep exhaust area clear of flammable debris. Avoid contact during and immediately after operation.



SAFE OPERATION

WARNING DANGER

Do not operate this product indoors or in inadequately ventilated areas. Engine exhaust contains poisonous emissions and can cause serious injury or death.

- Provide all operators of this equipment with the Operator's Manual and instructions for safe operation.

Keep A Firm Grip

- Hold the front and rear handles with both hands with thumbs and fingers encircling the handles

Keep A Solid Stance

- Maintain footing and balance at all times. Do not stand on slippery, uneven or unstable surfaces. Do not work in odd positions or on ladders. Do not over reach.

EMISSION CONTROL

EPA Phase 2

The emission control system for this engine is EM (Engine Modification).

Emission Control Label located on Engine

(EXAMPLE ONLY, information on label varies by FAMILY).

IMPORTANT ENGINE INFORMATION

ENGINE FAMILY: 2EHXS.0214RA DISPLACEMENT: 21.2 cc
EMISSION COMPLIANCE PERIOD : 300 hours
THIS ENGINE MEETS U.S. EPA PHA 2 EMISSION REGULATIONS FOR SMALL NON ROAD ENGINE. REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS.

KIORITZ CORP. ###

PRODUCT EMISSION DURABILITY

The 300 hour emission durability compliance period is the time span selected by the manufacturer certifying the engine emissions output meets applicable emissions regulations, provided that approved maintenance procedures are followed as listed in the Maintenance Section of this manual.

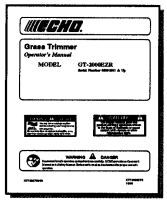
DESCRIPTION

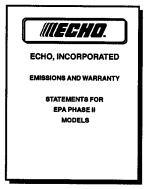
The ECHO product you purchased has been factory pre-assembled for your convenience. Due to packaging restrictions, shield installation and positioning of the front handle are necessary.

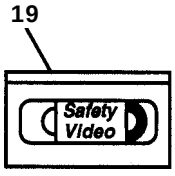
After opening the carton, check for damage. Immediately notify your retailer or ECHO Dealer of damaged or missing parts. Use the contents list to check for missing parts.

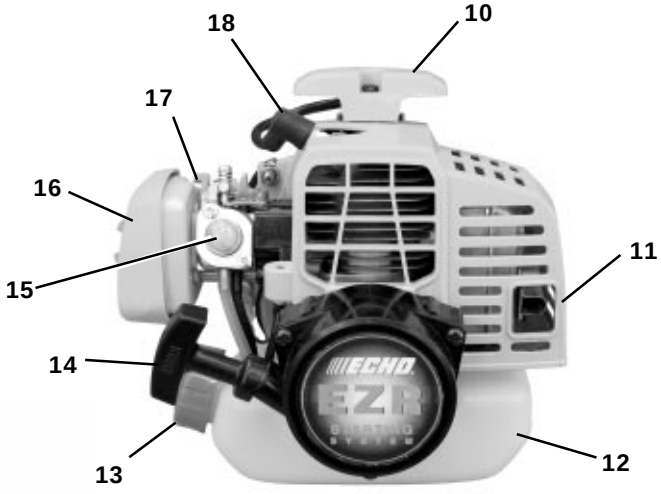
CONTENT LIST

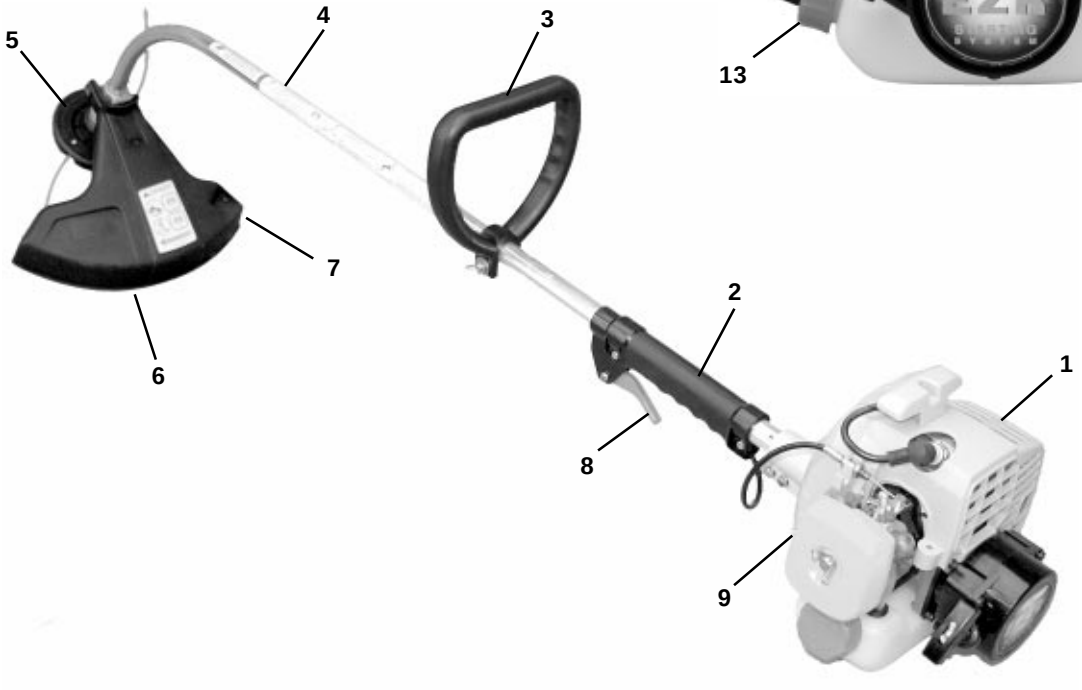
_____ 1 - Trimmer Assembly
_____ - Power Head
_____ - Drive Shaft Assembly
_____ 1 - Plastic Bag (Co-Pack)
_____ - Operator's Manual
_____ - Safety Manual
_____ - Shield Assembly
_____ 1 - Nylon Trimmer Head
_____ - 12, 8 in. x .080 Pre-cut Nylon Line
_____ - Hardware Bag
_____ - 1, Locking Tool
_____ - 1, Locknut 3/8-24
_____ - 1, Small Washer
_____ - 1, Large Washer
_____ - Warranty Card & Limited Warranty
_____ - Safety Glasses
_____ - Oil 2 Stroke











IMPORTANT
This spark ignition system complies with Canadian ICES-002

1. **POWER HEAD** - Factory Assembled to the Drive shaft assembly. Includes the Engine, Clutch, Fuel System, Ignition System and Recoil Starter.
2. **GRIP** - Rear (right hand) handle.
3. **FRONT HANDLE** - The Front (loop) handle is factory assembled to the Drive Shaft assembly but must be re-positioned for proper cutting attitude and operator comfort.
4. **DRIVE SHAFT ASSEMBLY** - Factory Assembled to the Power Head. Includes the Rear (right hand) Handle Assembly, Bearing Housing Assembly, Throttle Trigger, Front (loop, left hand) Handle Assembly, Flexible Drive Cable and Safety Decals.
5. **NYLON CUTTER HEAD** - Contains replaceable nylon trimming lines.
6. **DEBRIS SHIELD ASSEMBLY** - Included in plastic bag (co-pack). **MUST** be installed on unit before use, see Assembly Instructions. Shield assembly includes the Cut-Off Knife and Safety Decal. Mounts on the Bearing Housing Assembly just above the cutting attachment. Helps protect the operator by deflecting debris produced during the trimming operation.
7. **CUT-OFF KNIFE** - Trims line to the correct length (5"). If trimmer is operated without a cut-off knife the line will become too long - more than (5") - the operating speed will slow, the engine overheat and performance will suffer.
8. **THROTTLE TRIGGER** - Spring loaded to return to idle when released. During acceleration, press trigger gradually for best operating technique.
9. **STOP SWITCH** - "TOGGLE SWITCH" mounted on the engine. Move switch UP to RUN, DOWN to STOP.
10. **ARM REST** - Provides arm rest during operation and protects arm from hot engine.
11. **SPARK ARRESTOR - CATALYTIC MUFFLER / MUFFLER** - The muffler or catalytic muffler controls exhaust noise and emission. The spark arrestor screen prevents hot, glowing particles of carbon from leaving the muffler. Keep exhaust area clear of flammable debris.
12. **FUEL TANK** - Contains fuel and fuel filter.
13. **FUEL TANK CAP** - Cover and seals fuel tank opening.
14. **RECOIL STARTER HANDLE/ROPE** - Pull recoil starter handle/rope using light pulling force, approximately 2/3 (2 ft.) of rope length. Two (2) to Six (6) pulls are required to properly tension starter spring prior to automatic engine engagement. DO NOT let handle snap back or damage to unit will occur.
15. **PRIMER BULB** - Pumping primer bulb before starting engine draws fresh fuel from the fuel tank priming the carburetor for starting. Pump primer bulb until fuel is visible and flows freely in the clear fuel tank return line. Pump bulb an additional 4 or 5 times.
16. **AIR CLEANER** - Contains replaceable filter element.
17. **CHOKE** - Located above the air cleaner housing. Controls operation of choke. Move choke to starting position (Close Choke) and back to run position (Open Choke).
18. **SPARK PLUG** - Provides spark to ignite fuel mixture.
19. **SAFETY VIDEO** - (Not included with unit) P/N 99922202540 English version only is available at a cost of $5.00 from ECHO, INC. or any authorized ECHO dealer. The video overviews safety precautions and proper operating techniques and is supplemental to the Safety Manual. Read and understand the Safety Manual for complete information on safe operation.

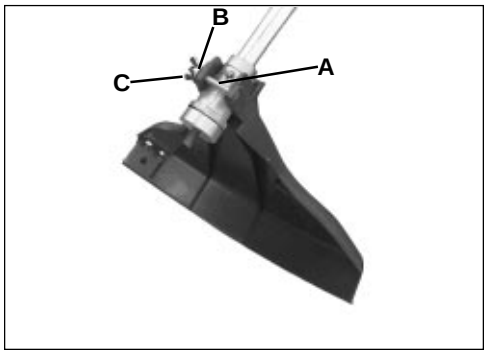
SPECIFICATIONS

MODEL	**GT-2000EZR**
Length	1405 mm (55.3 in.)
Width	315 mm (12.4 in.)
Height	360 mm (14.2 in.)
Weight (dry) w/Cutter Head	4.55 kg (10.0 lb.)
Engine Type	Air cooled, two-stroke, single cylinder gasoline engine
Bore	32.2 mm (1.268 in.)
Stroke	26.0 mm (1.04 in.)
Displacement	21.2 cc (1.29 cu. in.)
Exhaust System	Spark Arrestor Muffler
Carburetor	Zama diaphragm model w/primer
Ignition System	Flywheel magneto, capacitor discharge
Spark Plug	Champion RCJ-7Y Gap 0.65 mm (0.026 in.)
Fuel	Mixed (Gasoline and Two-stroke Oil)
Fuel/Oil Ratio	50:1 ECHO High Performance, two-stroke air cooled engine oil
Gasoline	89 Octane unleaded. DO NOT use fuel containing methyl alcohol, more than 10% ethyl alcohol or 15% MTBE.
Oil	50:1 ECHO High Performance, two-stroke air cooled engine oil
Fuel Tank Capacity	0.4 lit. (14.0 US fl. oz.)
Starter System	Semi-automatic Recoil Starter Assist
Clutch	Centrifugal Type
Drive Shaft	6.35 mm (1/4 in.) Flex Shaft
Rotating Direction	Clockwise viewed from top
Cutter Head	Nylon line head (2-line) with .080 Line capacity 203 mm (8 in.)
Handle	Left - D-Loop, Right - Grip
Shoulder Harness	Optional P/N 99944200201
Idle Speed (RPM)	2400 - 3200
Wide Open Throttle Speed (W.O.T.) with Nylon Line Head (RPM)	6800 - 7800

ASSEMBLY

PLASTIC SHIELD

Tools Required: None

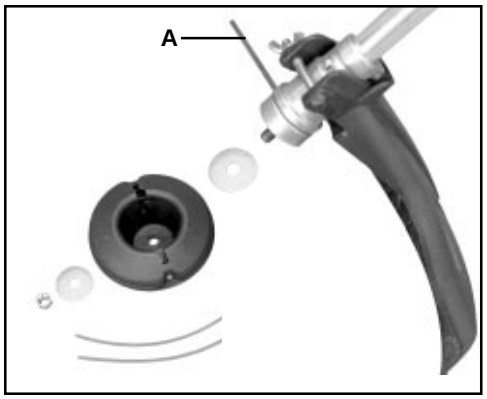


1. Remove wing nut (C), washer (B), and bolt (A).
2. Snap the shield over the bearing housing.
3. Install bolt (A), washer (B) and wing nut (C).

NYLON LINE HEAD

Tools Required: Head Locking Tool, 9/16 in. Socket

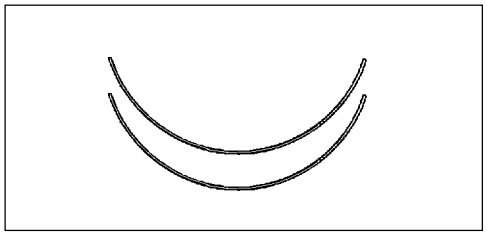
Parts Required: Rapid Loader™ Head.



1. Remove plastic threaded shaft sleeve from PTO shaft.
2. Align locating hole in upper plate with hole in bearing housing and insert 1/8 in. diameter locking tool (A).
3. Place large washer then line head on threaded shaft followed by small metal washer and locknut.
4. Tighten locknut securely.

IMPORTANT
Remember to remove the locking tool.

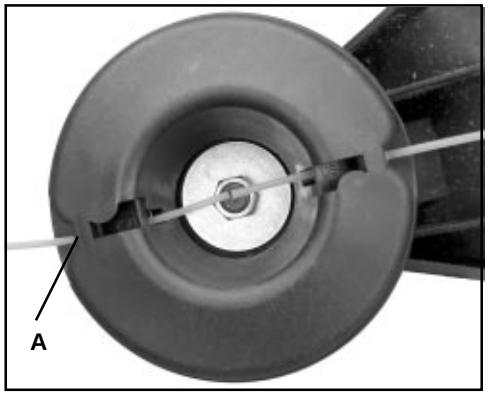
NYLON LINE REPLACEMENT



Tools Required: None

Parts Required: Two (2) ECHO 0.080 (2 mm) Nylon Trimmer Line 203 mm (8 in.) long

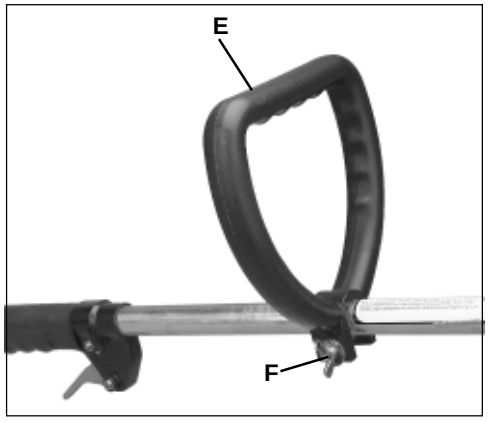
1. Shut engine off. Lay unit on the ground with head assembly up.
2. Remove old nylon line through center recess of head.
3. Thread new lines through outside holes (A) in housing until ends meet in center of recess.



FRONT (LOOP) HANDLE

NOTE
Front handle is pre-installed. Re-positioning and tightening is all that is required.

1. Position front handle (E) in comfortable operating position and tighten wing nut (F). The cutting attachment should be 5cm- 7.5cm (2 in. -3 in.) above the ground and as level as possible.



PRE - OPERATION

FUEL

Fuel Requirements

Gasoline - Use 89 Octane [R+M/2] (mid grade or higher) gasoline known to be good quality. Gasoline may contain up to 15% MTBE (methyl tertiary-butyl ether). Gasohol containing methyl (wood) alcohol is **NOT** approved.

Two Stroke Oil - A two-stroke engine oil meeting ISO-L-EGD (ISO/CD 13738) and J.A.S.O. FC Standards, must be used. Echo brand Premium 50:1 oil meets these standards. Engine problems due to inadequate lubrication caused by failure to use an ISO-L-EGD and J.A.S.O. FC certified oil, such as Echo Premium 50:1 Two-stroke Oil, will void the two-stroke engine warranty. (Emission related parts only are covered for two years, regardless of two-stroke oil used, per the statement listed in the Emission Defect Warranty Explanation.)

IMPORTANT
Echo Premium 2-Stroke Oil may be mixed at 50:1 ratio for application in all Echo engines sold in the past regardless of ratio specified in those manuals.

Mixing Instructions

1. Fill an approved fuel container with half of the required amount of gasoline.
2. Add 2-stroke oil to gasoline.
3. Close container and shake to mix oil with gasoline.
4. Add remaining gasoline and remix.
5. Install fuel container cap and wipe any spilled fuel from container and surrounding area.

Handling Fuel

WARNING DANGER

Fuel is **VERY** flammable. Use extreme care when mixing, storing or handling, or serious personal injury may result.

- Use an approved fuel container.
- DO NOT smoke near fuel.
- DO NOT allow flames or sparks near fuel.
- Fuel tanks/cans may be under pressure. Always loosen fuel caps slowly allowing pressure to equalize.
- NEVER refuel a unit when the engine is HOT!
- NEVER refuel a unit with the engine running.
- DO NOT fill fuel tanks indoors. ALWAYS fill fuel tanks outdoors over bare ground.
- Securely tighten fuel cap after refueling.
- Inspect for fuel leakage. If fuel leakage is found, do not start or operate unit until leakage is repaired.

IMPORTANT
Spilled fuel is a leading cause of hydrocarbon emissions. Some states may require the use of automatic fuel shut-off containers to reduce fuel spillage. Contact your ECHO dealer for ordering information.

After refueling

- Wipe any spilled fuel from the unit.
- Move at least 3 m (10 ft.) from refueling location before starting the engine.

After use

- DO NOT store a unit with fuel in its tank. Leaks can occur. Return unused fuel to an approved fuel storage container.

Storage

Fuel storage laws vary by locality. Contact your local government for the laws affecting your area. As a precaution, store fuel in an approved, air tight container. Store in a well ventilated, unoccupied building, away from sparks and flames. Do not store fuel longer than 30 days.

IMPORTANT
Stored fuel ages. Do not mix more fuel than you expect to use in thirty (30) days, ninety (90) days when a fuel stabilizer is added.

IMPORTANT
Stored two-stroke fuel may separate. ALWAYS shake fuel container thoroughly before each use.

OPERATION

STARTING COLD ENGINE

WARNING DANGER

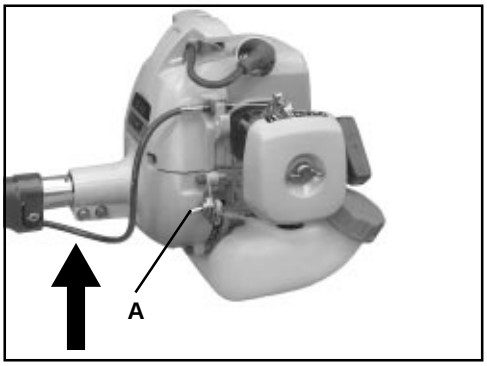
- Never leave the ignition switch in the on position while the unit is unattended.
- Never allow partial tension to remain in the starter, otherwise serious personal injury may result.

WARNING DANGER

Never attempt to disassemble this recoil starter otherwise serious personal injury may result. See your Echo Dealer if the starter handle will not operate using light pulling force.

NOTE
Energy is stored in the starter spring each time the handle/rope is pulled. Generally two to six pulls, using light pulling forces, will store enough energy to engage the starter and spin the engine. Do not pull the rope out to end stop.

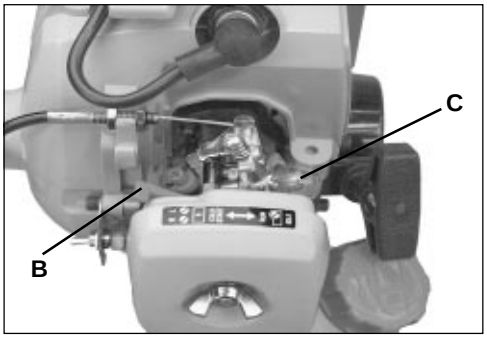
NOTE
Refer to the Grass Trimmer / Brush Cutter Safety Manual for proper and safe trimming techniques.



1. *Stop Switch*
   Move stop switch button (A) away from the STOP position.

2. *Choke*
   Move choke (B) to “Cold Start” Position.

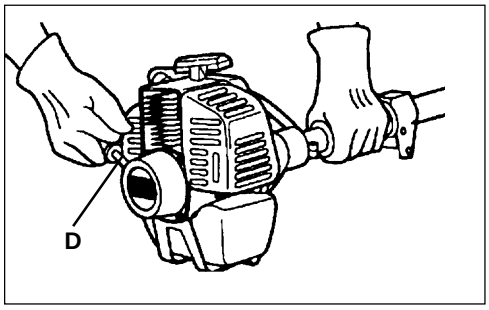
3. *Primer*
   Pump primer bulb (C) until fuel will be visible and flows freely in the clear fuel tank return line. Pump bulb an additional 4 or 5 times.



WARNING DANGER

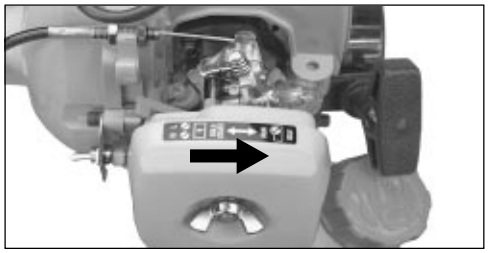
Inspect starting area for hazards such as rocks, glass, debris etc. which could be thrown by the cutting attachment when starting. Keep helpers and bystanders at least 15 m (50 ft.) from starting area, otherwise serious personal injury may result.

4. *Recoil Starter*
   Lay the unit on a flat clear area. Firmly grasp throttle grip with left hand and fully depress throttle trigger to wide open position. Gently pull recoil starter handle/rope (D) until engine fires or 2 to 3 engine engagements.



5. *Choke*
   After engine fires or 2 to 3 engine engagements, move choke lever to "Run" position. Hold throttle trigger fully depressed and pull starter handle/rope until engine starts and runs. Release throttle trigger and allow unit to warm up at idle for several minutes.

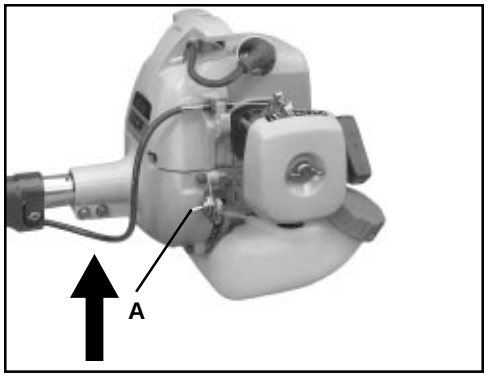
NOTE
If engine does not start with choke in "Run" position after 5 engine engagements, repeat instructions.



6. After engine warm up, gradually depress throttle trigger to increase engine RPM to operating speed.

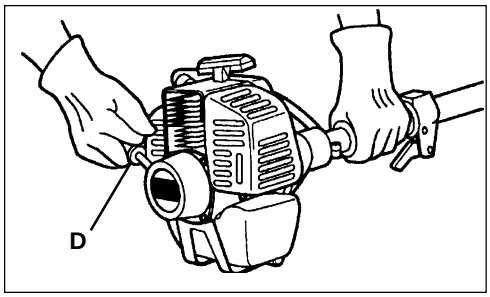
STARTING WARM ENGINE

WARNING ⚠ DANGER
The cutting attachment should not rotate at idle. If attachment rotates, readjust carburetor according to "Carburetor Adjustment" instructions in this manual or see your ECHO Dealer, otherwise serious personal injury may result.



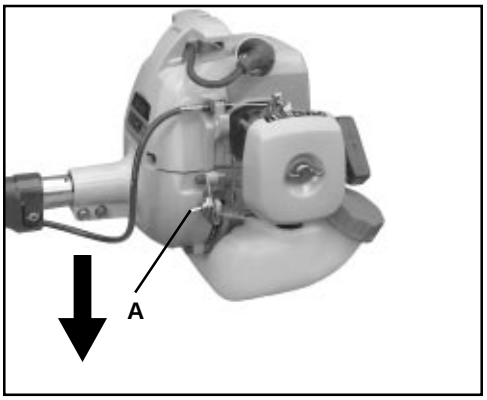
1. *Stop Switch*
   Move stop switch button (A) away from the STOP position.

2. *Recoil Starter*
   Lay the unit on a flat clear area and gently pull the recoil starter handle (D) until engine fires.



NOTE
If engine does not start after 5 engine engagements, use Cold Start Procedure.

STOPPING ENGINE



1. *Throttle*
   Release throttle and allow engine to return to idle before shutting engine off.

2. *Stop Switch*
   Move stop switch button (A) to STOP position.

WARNING ⚠ DANGER

If engine does not stop when stop switch is moved to STOP position, close choke - COLD START position - to stall engine. Have your ECHO dealer repair stop switch before using trimmer again.

MAINTENANCE

Your ECHO trimmer is designed to provide many hours of trouble free service. Regular scheduled maintenance will help your trimmer achieve that goal. If you are unsure or are not equipped with the necessary tools, you may want to take your unit to an ECHO Service Dealer for maintenance. To help you decide whether you want to DO-IT-YOURSELF or have the ECHO Dealer do it, each maintenance task has been graded. If the task is not listed see your Echo dealer for repairs.

SKILL LEVEL

Level 1 = Easy to do. Most required tools come with unit.

Level 2 = Moderate difficulty. Some specialized tools may be required.

Level 3 = Experience required. Specialized tools are required. ECHO recommends that the unit be returned to your ECHO dealer for servicing.

ECHO offers **REPOWER™** Maintenance Kits and Parts to make your maintenance job easier. Just below each task heading are listed the various part numbers required for that task. See your ECHO dealer for these parts.

MAINTENANCE INTERVALS

Component/System	Maintenance Procedure	Daily or Before Use	Every Refuel	3 Months or 90 Hours	6 Months or 270 Hours	Yearly
Air Filter	Inspect / Replace	**I / C**		**R ***		
Fuel Strainer	Inspect / Replace			**I**		**R ***
Fuel Line	Inspect / Replace	**I**	**I**			
Carburetor	Inspect / Clean / Replace				**I / C**	**R * (1)**
Choke System	Inspect / Clean / Replace	**I / C**				
Cooling System	Inspect / Clean	**I / C**				
Muffler Spark Arrestor	Inspect / Clean			**I / C**		
Drive Shaft (Flex Cable Models)	Grease			**I (2)**		
Starter Rope	Inspect / Clean	**I**				
Fuel Leaks	Inspect / Repair	**I**	**I / R ***			
Spark Plug	Clean / Replace			**I / C**	**R ***	
Screws/Nuts/Bolts	Inspect / Tighten / Replace	**I**				

I = Inspect / R = Replace / C = Clean
IMPORTANT
Time intervals shown are maximum. Actual use and your experience will determine the frequency of required maintenance.
(1) Replacement will be required for commercial use yearly. For Consumer use, cleaning every 6 months is required. Cleaning includes Rebuild Kits.
(2) Apply ECHO® LUBE™ every 25 hours of use.
***All recommendations to replace are based on the finding of damage or wear during inspection.**

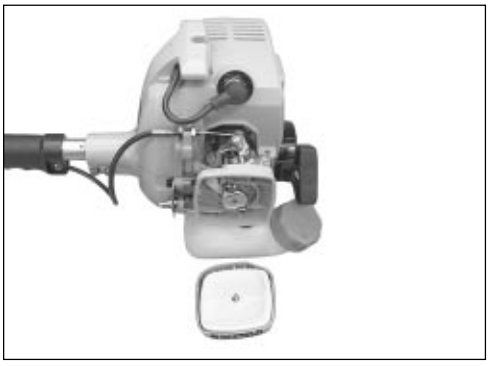
AIR FILTER

Level 1.

Tools required: Cleaning brush, 25 or 50 mm (1 or 2 in.) medium bristle paint brush.

Parts required: 90008 REPOWER™ AIR & FUEL FILTER KIT.

1. Close choke (Cold Start Position). This prevents dirt from entering the carburetor throat when the air filter is removed. Brush accumulated dirt from the air cleaner area.

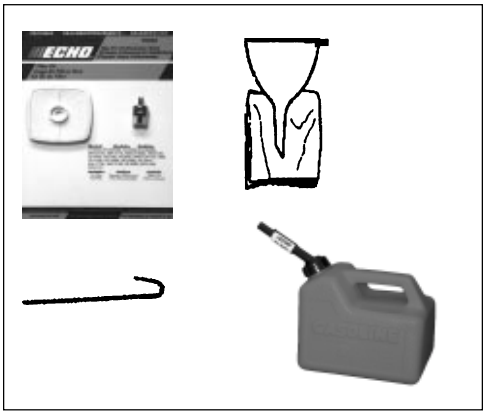


2. Remove the air cleaner cover. Clean and inspect the element for damage. If element is fuel soaked and very dirty, replace.

3. If element can be cleaned and reused, be certain it:
   -still fits the cavity in the air cleaner cover.
   -is installed with the original side out.

NOTE
Carburetor adjustment may be needed after air filter cleaning/ replacement. See Carburetor Adjustment Section.

FUEL FILTER



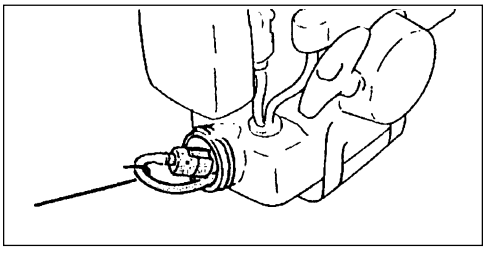
Level 1.

Tools required: Fuel line hook, 200-250 mm (8-10 in.) length of wire with one end bent into a hook. Clean rag, funnel, and an approved fuel container.

Parts required: 90008 REPOWER™ AIR & FUEL FILTER KIT

WARNING DANGER

Fuel is **VERY** flammable. Use extreme care when mixing, storing or handling.



1. Use a clean rag to remove loose dirt from around fuel cap and empty fuel tank.

2. Use the "fuel line hook" to pull the fuel line and filter from the tank.

3. Remove the filter from the line and install the new filter.

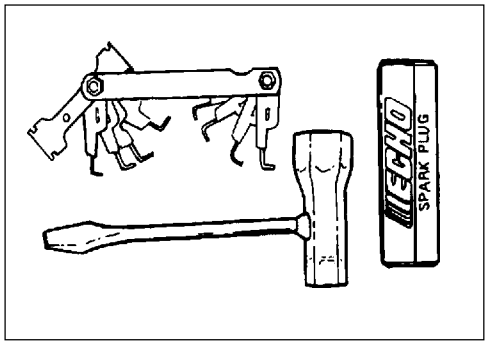
SPARK PLUG

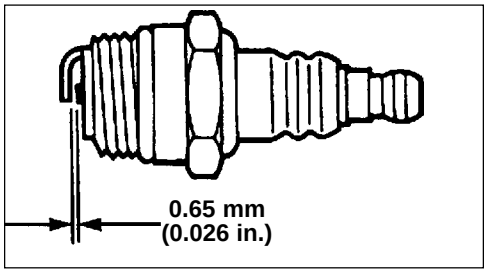
Level 2.

Tools Required: Spark Plug socket wrench and screw driver, Feeler gauge. Preferably a wire gauge.

Parts Required: Spark Plug, Champion RCJ-7Y

1. Remove spark plug and check for fouling, worn and rounded center electrode.
2. Clean the plug or replace with a new one. DO NOT sand blast to clean. Remaining sand will damage engine.
3. Adjust spark plug gap by bending outer electrode.
4. Tighten spark plug to 145-155 kg/cm (125-135 in. lb.).



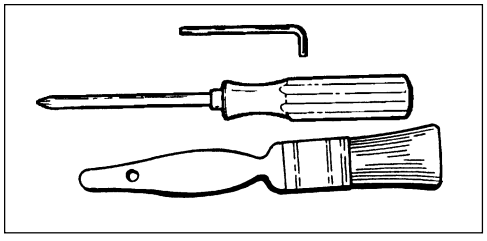


COOLING SYSTEMS CLEANING

Level 2.

Tools required: Cross Head Screwdriver, 3 mm Hex Wrench, Cleaning Brush, 25-50 mm (1-2 in.) medium bristle paint brush.

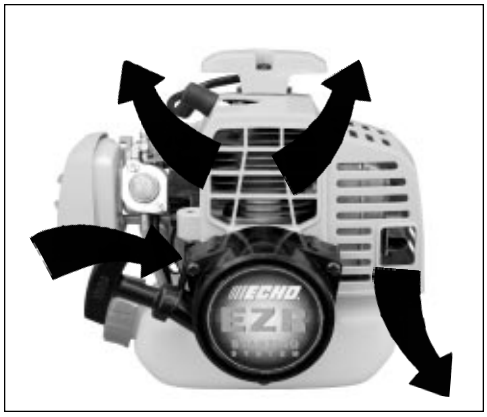
Parts Required: None.



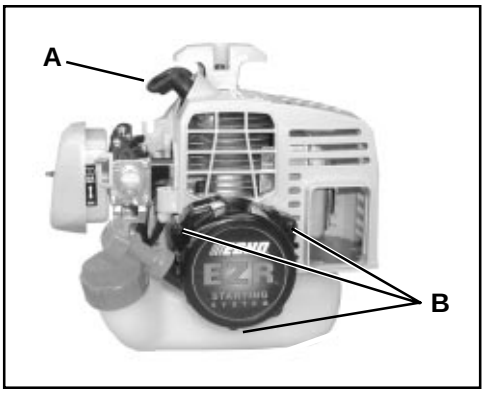
IMPORTANT
To maintain proper engine operating temperatures, cooling air must pass freely through the cylinder fin area. This flow of air carries combustion heat away from the engine.

Overheating and engine seizure can occur when:
- Air intakes are blocked, preventing cooling air from reaching the cylinder.
- Dust and grass build up on the outside of the cylinder. This build up insulates the engine and prevents the heat from leaving.

Removal of cooling passage blockages or cleaning of cooling fins is considered “Normal Maintenance”. Any failure attributed to lack of maintenance is not warranted.

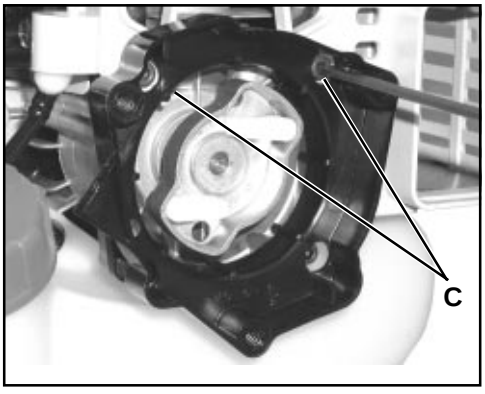


1. Disconnect spark plug lead (A) from spark plug.
2. Remove spark plug lead grommet from top of engine cover.
3. Release stored energy in power spring by removing spark plug.
4. Remove three (3) screws (B) from starter assembly and remove starter.

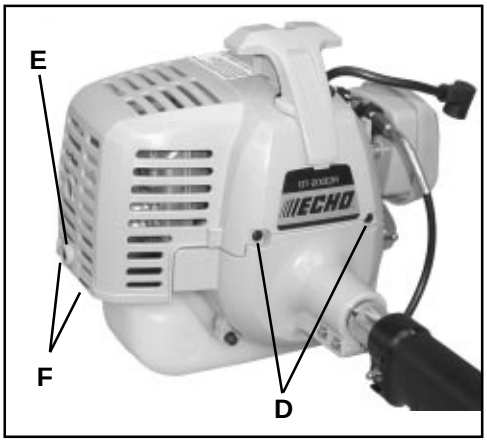


NOTE
DO NOT disassemble the starter assembly.

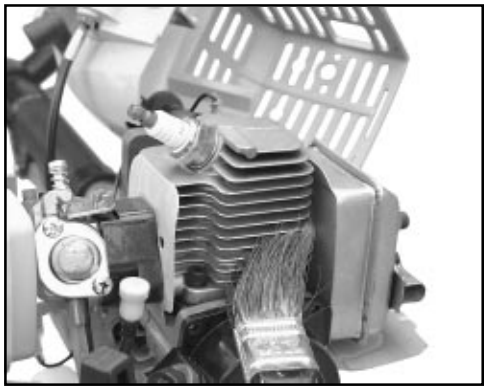
5. Remove the five screws that retain the engine cover. Two at the inside top of the mounting plate (C), two on either side of the front (D), and one at the muffler cover (E).



6. Disengage the heat deflector tabs (F) under the muffler from the slots in the engine/muffler cover.



7. Lift the cover from the engine and lay to the front of the trimmer.

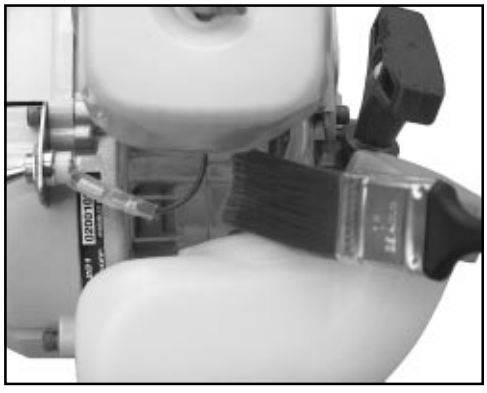


NOTE
The spark plug lead remains in the cover.

8. Reinstall spark plug and EZR Starter Assembly to prevent dirt and debris from entering engine and starter.

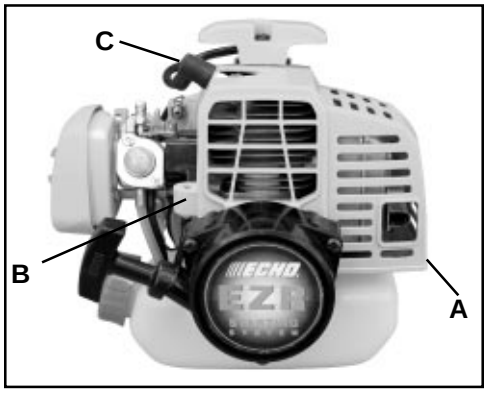
NOTE
When installing EZR starter housing to EZR mounting body, be sure that EZR drive starter cam engages the starter pawls correctly.

9. Use a brush to remove dirt from the cylinder fins.



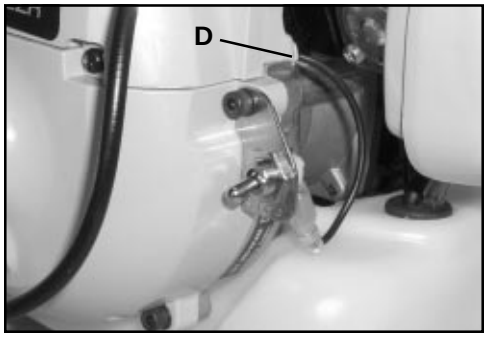
IMPORTANT
DO NOT use a metal scraper to remove dirt from the cylinder fins.

10. Remove grass and leaves from the grid between the starter and fuel tank.



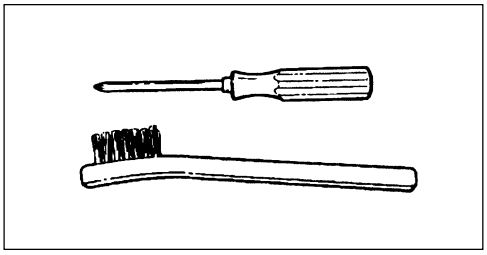
11. Reassemble parts in reverse order of removal. When installing the cover, be certain:

- the tabs of the deflector shield (A) are in the slots of the cover
- the fuel check valve (B) is positioned in the cover
- the spark plug (C) is tightened securely
- the spark plug lead grommet is properly installed
- the ignition wire (D) is not pinched



EXHAUST SYSTEM

Spark Arrestor Screen

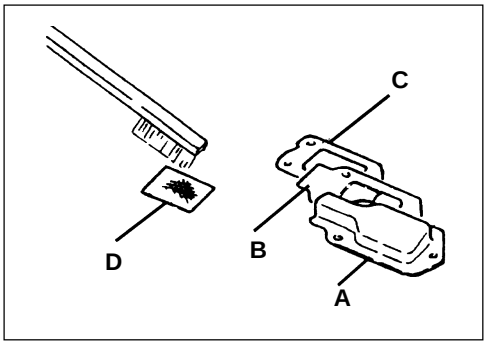


Level 2.

Tools Required: Cross Head Screwdriver. Soft metal brush.

Parts Required: Screen P/N 14586240630, Gasket Lid P/N 14586642031

1. Remove engine cover, see "Cooling System Cleaning" pages 18 - 20 for step by step instructions.
2. Remove screen cover (A), holder (B) and gasket (C) from muffler body.
3. Clean carbon deposits from screen (D) and muffler components.
4. Replace screen if it is cracked, plugged or has holes burned through.
5. Assemble components in reverse order.



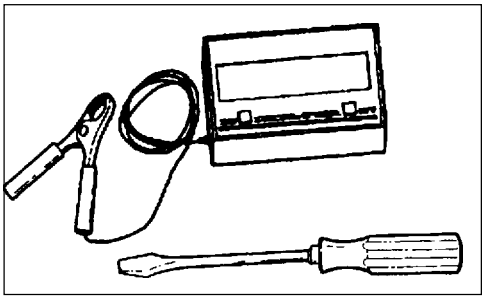
CARBURETOR ADJUSTMENT

Engine Break-In

New engines must be operated a minimum duration of two tanks of fuel break-in before carburetor adjustments can be made. During the break-in period your engine performance will increase and exhaust emissions will stabilize. Idle speed can be adjusted as required.

High Altitude Adjustment

High altitude adjustment is not required for proper operation of this engine.



Level 2.

Tools required: Screwdriver, Tachometer (ECHO P/N 99051130017).

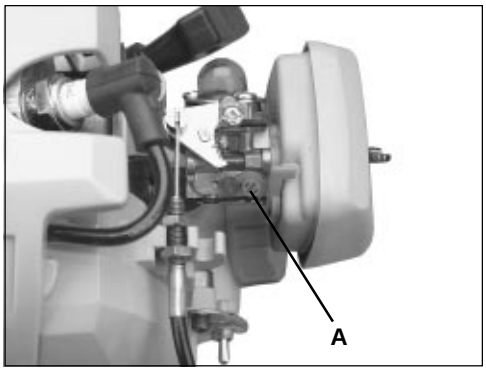
Parts required: None.

NOTE
Every unit is run at the factory and the carburetor is set in compliance with emission regulations. In addition, the carburetor is equipped with a HI needle adjustment limiter that prevents settings outside acceptable limits.

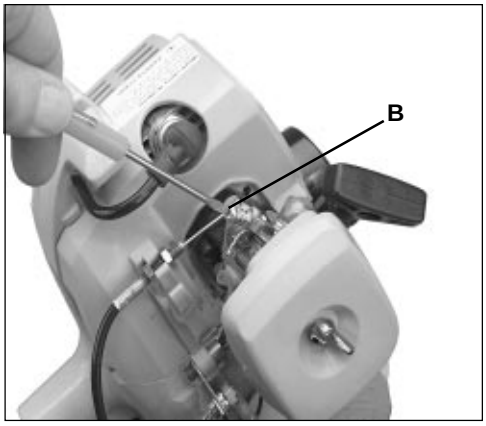
1. Before adjusting the carburetor, clean or replace the air filter and spark arrestor screen.
2. Trimmer line must be extended to the cut-off knife.

3. Start engine and run for several minutes to reach operating temperature.

4. Stop engine. Turn HI speed needle (A) CCW (counter clockwise) to stop.



5. Idle Speed Adjustment.
   - Start engine and turn “idle” speed adjustment screw (B) CW until the blades begin to turn, then turn the screw CCW until blades stop turning. Turn screw CCW an additional 1/4 turn.



6. Accelerate to full throttle for 2-3 seconds to clear excess fuel from engine then return to idle. Accelerate to full throttle to check for smooth transition from idle to full throttle. If engine stops or stalls after full warm up return the unit to your authorized ECHO dealer for repair.

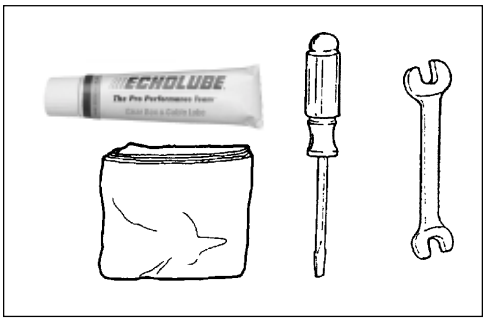
7. Check HI speed RPM at W.O.T. (Wide Open Throttle). HI speed RPM should be set to specifications found on page 9 "Specifications" of this manual.

8. Check idle speed and reset if necessary. If a tachometer is available, idle speed should be set to the specification found on page 9 "Specifications" of this manual.

WARNING DANGER

When carburetor adjustment is completed, the cutting attachment should not turn at idle, otherwise serious personal injury may result.

LUBRICATION

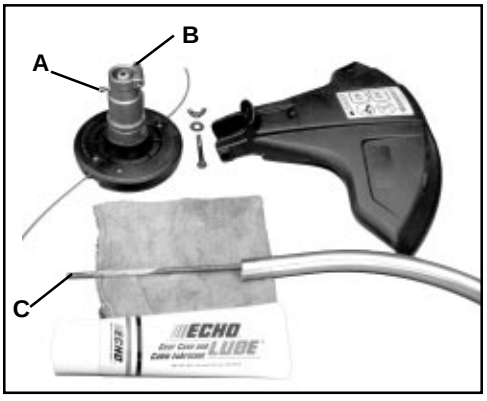


Level 1.

Tools Required: 8mm Open End Wrench, Screwdriver, Clean Rag.

Parts Required: ECHO® LUBE™ 8 oz. (P/N 91014) or Lithium Base Grease.

1. Remove plastic shield.
2. Loosen bearing housing locating screw (A), at the top of the housing, loosen mounting screw (B) and remove gear case from drive housing.
3. Pull the flexible drive shaft (C) from the drive housing, wipe clean and recoat with a thin coating [1/2 oz. (15 ml)] of grease.
4. Slide the flexible drive shaft back in the drive housing being careful not to get dirt on the flexible drive shaft.
5. Install the bearing housing and shield.



TROUBLESHOOTING

ENGINE PROBLEM TROUBLESHOOTING CHART				
Problem	**Check**	**Status**	**Cause**	**Remedy**
Engine cranks - starts hard/ doesn't start	Fuel at carburetor	No fuel at carburetor	Fuel strainer clogged Fuel line clogged Carburetor	Clean or replace Clean or replace See your Echo dealer
	Fuel at cylinder	No fuel at cylinder	Carburetor	See your Echo dealer
		Muffler wet with fuel	Fuel Mixture too rich	Open choke Clean/replace air filter Adjust carburetor See your Echo dealer
	Spark at end of plug wire	No spark	Stop switch off Electrical problem Interlock switch	Turn switch to ON See your Echo dealer See your Echo dealer
	Spark at plug	No spark	Spark gap incorrect Covered with carbon Fouled with fuel Plug defective	Adjust to .65mm (0.026 in.) Clean or replace Clean or replace Replace plug
Engine runs, but dies or does not accelerate properly	Air filter	Air filter dirty	Normal wear	Clean or replace
	Fuel filter	Fuel filter dirty	Contaminants/residues in fuel	Replace
	Fuel vent	Fuel vent plugged	Contaminants/residues in fuel	Clean or replace
	Spark Plug	Plug dirty/worn	Normal wear	Clean and adjust or replace
	Carburetor	Improper adjustment	Vibration	Adjust
	Cooling System	Cooling system dirty/plugged	Extended operation in dirty/dusty locations	Clean
	Spark Arrestor Screen	Spark arrestor screen plugged	Normal wear	Replace
Engine does not crank	N/A	N/A	Internal engine problem	See your Echo dealer

WARNING DANGER

Fuel vapors are **extremely** flammable and may cause fire and/or explosion. **Never** test for ignition spark near an open spark plug opening, otherwise serious personal injury may result.

STORAGE

Long Term Storage (over 30 days)

WARNING ⚠ DANGER

During operation the muffler or catalytic muffler and surrounding cover become hot. Always keep exhaust area clear of flammable debris during transportation or when storing, otherwise serious property damage or personal injury may result.

Do not store your unit for a prolonged period of time (30 days or longer) without performing protective storage maintenance which includes the following:

1. Store unit in a dry, dust free place, out of the reach of children.

WARNING ⚠ DANGER

Do not store in enclosure where fuel fumes may accumulate or reach an open flame or spark.

2. Place the stop switch in the "OFF" position.
3. Remove accumulation of grease, oil, dirt and debris from exterior of unit.
4. Perform all periodic lubrication and services that are required.
5. Tighten all the screws and nuts.
6. **Drain** the fuel tank **completely** and pull the recoil starter handle several times to remove fuel from the carburetor.
7. Remove the spark plug and pour 7 cc (1/4 oz.) (1/2 tablespoon) of fresh, clean, two-stroke engine oil into the cylinder through the spark plug hole.
   A. Place a clean cloth over the spark plug hole.
   B. Pull the recoil starter handle 2-3 times to distribute the oil inside the engine.
8. Install the spark plug (do not connect spark plug cable).

IMPORTANT
Do not store the unit with tension remaining on the starter spring.

NOTES

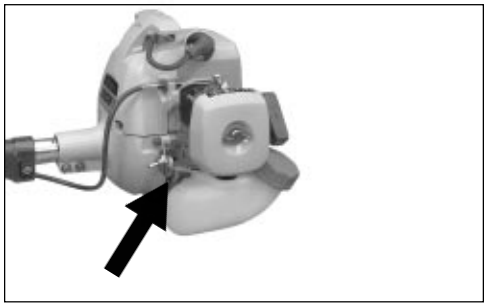
NOTES

SERVICING INFORMATION

PARTS

Genuine ECHO Parts and ECHO REPOWER™ Parts and Assemblies for your ECHO products are available only from an Authorized ECHO Dealer. When you do need to buy parts **always** have the Model Number, Type and Serial Number of the unit with you. You can find these numbers on the engine housing. For future reference, write them in the space provided below.

Model No. _____ Type _____SN. _____



SERVICE

Service of this product during the warranty period must be performed by an Authorized ECHO Service Dealer. For the name and address of the Authorized ECHO Service Dealer nearest you, ask your retailer or call: 1-800-432-ECHO (3246)**.** Dealer information is also available on our Web Site. When presenting your unit for Warranty service/repairs, proof of purchase is required.

DEALER?
Call
1-800-432-ECHO
or
www.echo-usa.com

ECHO CONSUMER PRODUCT SUPPORT

If you require assistance or have questions concerning the application, operation or maintenance of this product you may call the ECHO Consumer Product Support Department at 1-800-673-1558 from 8:30 am to 4:30 pm (Central Standard Time) Monday through Friday. Before calling, please know the model and serial number of your unit to help your Consumer Product Support Representative.

CONSUMER PRODUCT SUPPORT
1-800-673-1558
8:30 - 4:30 Mon - Fri C.S.T.

WARRANTY REGISTRATION

You may register your Echo equipment using the warranty registration card or register on-line at www.echo-usa.com. Registering provides a direct link between you and ECHO if we find it necessary to contact you.

ADDITIONAL OR REPLACEMENT MANUALS

Safety Manuals in English/Spanish or English/French are available, free of charge, from your ECHO dealer or at www.echo-usa.com.

Operator's and Parts Manuals are available by:

- Downloading free from www.echo-usa.com
- Purchasing from your Echo Dealer.
- Sending a check or money order for $2.00 per Parts Catalog or $1.50 per Operator's Manual made payable to ECHO, INCORPORATED. State on a sheet of paper the model number and serial number of the ECHO unit you have, part number of the manual (if known), your name and address and mail to address below.

Safety Videos are available from your Echo dealer. A $5.00 shipping charge will be required for each video.

Available Parts Catalog

GT-2000EZR S/N 04001001 - 04999999 Part Number 99922203363

ECHO, INCORPORATED
400 OAKWOOD ROAD
LAKE ZURICH, IL 60047-1564
www.echo-usa.com